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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN G. KENNEDY

Appeal 2007-1894
Application 10/092,170¹
Technology Center 2100

Decided: February 26, 2008

Before ALLEN R. MACDONALD, JAY P. LUCAS, and
JOHN A. JEFFERY, *Administrative Patent Judges*.

LUCAS, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Application filed June 3, 2002. The real party in interest is Sun Microsystems, Inc.

STATEMENT OF CASE

Appellant appeals from a final rejection of claims 1 to 40 under authority of 35 U.S.C. § 134. The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

Appellant's invention relates to a system and method for determining the availability of a network system on a continuing basis. In the words of the Appellant:

Independent claim 1 is directed toward a system comprising a network system and a plurality of network components. A host computer system is coupled to the network system and is configured to determine the availability of the network system by determining the network configuration, detecting a failure of one of its components, and determining and storing an indication of the availability of the network components. *See, e.g.*, FIG. 2, and paragraphs 0032 and 0036.

To determine the network configuration, the host computer system is configured to perform system discovery. As described in Appellant's specification, a system discovery agent executing on host 101 may be configured to perform system discovery and to provide the system discovery data to a system availability agent. In some embodiments, the system discovery agent may create a data file including the system discovery data or may provide a pointer to a data structure including the system discovery data. System discovery data may indicate a configuration of the plurality of network components and may be gathered in a variety of ways.²

Claim 1 is exemplary:

1. A system, comprising:

² *See, e.g.*, the present disclosure, at Figs. 1 and 2; ¶¶ 0022-0025 and 0036; *see also* the discussion of claim 7, *infra*, for a more detailed summary of the methods by which the host computer system of claim 1 may perform system discovery.

a network system comprising a plurality of network components;
a host computer system coupled to the network system, wherein the
host computer system is configured to:
perform system discovery to generate data indicative of a
configuration of the plurality of network components;
detect a failure of one of the components included in the
plurality of network components;
in response to identifying the failed component, update an
availability of the network system using the data
indicative of the configuration of the plurality of
network components; and
store data indicative of the availability of the network system.

The prior art relied upon by the Examiner in rejecting the claims on
appeal is:

Chirashnya	US 2002/0019870 A1	Feb. 14, 2002 (filed 6/28/01)
Noy	US 2003/0051049 A1	Mar. 13, 2003 (filed 8/13/02)
Rogers	US 2003/0048782 A1	Mar. 13, 2003 (filed 11/1/02)

Rejections (R1 through R6):

R1: Claims 1 to 15, 22 to 31, and 33 to 36 stand rejected under
35 U.S.C. § 102(e) for being anticipated by Chirashnya.

R2: Claims 16 to 19, 32, 37, 38, and 40 stand rejected under
35 U.S.C. § 103(a) for being obvious over Chirashnya.

R3: Claims 20 and 21 stand rejected under 35 U.S.C. 103(a) for being obvious over Chirashnya in view of Rogers.

R4: Claims 12 to 33 and 37 to 40 stand rejected under 35 U.S.C. 103(a) for being obvious over Chirashnya in view of Noy.

R5: Claim 39 stands rejected under 35 U.S.C. § 103(a) for being obvious over Chirashnya in view of Noy.

R6: Claim 40 stands rejected under 35 U.S.C. § 103(a) for being obvious over Chirashnya in view of the Examiner's "Official Notice."

Appellant contends that the claimed subject matter is not anticipated by Chirashnya, or rendered obvious by Chirashnya alone, or in combination with Rogers or Noy, as Chirashnya fails to teach the claimed limitations and the Rogers and Noy references post-date the invention by the Appellant. The Examiner contends that all claims are properly rejected.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).³

We reverse the rejections.

³ Appellant has not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group, except as will be noted in this opinion. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991).

ISSUE

The issue is whether Appellant has shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103(a) (2004). The issue turns on whether 1) there is a disclosure in the Chirashnya reference to the claimed limitation of “availability of the network system;” and 2) the Examiner has properly rejected claims 20, 21, and 39 over the cited Rogers and Noy references.

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Appellant has invented a system, method, and computer program which compute the availability of a network system. The invention performs a system discovery which determines the configuration of the components included in the network system (Spec. 8, ¶ 0020). The topology may be discovered by sending ID requests to each component on the network, and receiving back unique identifiers with connection information (*Ibid.*, ¶ 0021). A network system availability is calculated, expressed in terms of a probability, by one of certain recognized methodologies (*Ibid.* 15, ¶ 40 *et seq.*). If component failure is detected, then the network system availability is recalculated (Spec. 10, ¶ 0025).
2. The Chirashnya patent teaches a system for diagnosing a network and calculating probability of malfunctions of components. When faults are sensed in the network, the offending components are identified

- and the probability of malfunctions is recalculated (§§ 0029 to 0031). Malfunction probabilities are expressed in terms of failure rates, such as estimated mean time between failures (MTBF) (§ 0054).
3. Rogers, a U.S. Patent Application Publication, teaches the calculation of operational availability of one or more networks. Rogers was filed on November 1, 2002, after the filing date of the instant application, but claims benefit of a provisional application, 60/344,448 filed November 1, 2001, before the filing date of the instant application. Rogers also claims benefit of being a continuation-in-part of Application 09/446,744, filed December 22, 2000, before the filing date of the instant application.
 4. Noy, another U.S. Patent Application Publication, focuses on the discovery of the paths in a complicated network of device components. Noy was filed on August 13, 2002, after the date of the instant application, but claims the benefit of a provisional application, 60/312,080, filed on August 15, 2001, before the date of the instant application's filing.

PRINCIPLES OF LAW

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of

nonobviousness.”) (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

“In reviewing the [E]xaminer’s decision on appeal, the Board must necessarily weigh all of the evidence and argument.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

“To reject claims in an application under section 103, an examiner must show an unrebutted *prima facie* case of obviousness. . . . On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.” *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998) (citations omitted).

“Shortly after the creation of this court, Judge Rich wrote that ‘[t]he descriptive part of the specification aids in ascertaining the scope and meaning of the claims inasmuch as the words of the claims must be based upon the description. The specification is, thus, the primary basis for construing the claims.’ *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985). On numerous occasions since then, we have reaffirmed that point . . .” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005).

Our reviewing court states in *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989) that “claims must be interpreted as broadly as their terms reasonably allow.” Our reviewing court further states that “the words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). The “ordinary and customary meaning of a claim term is the

meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

ANALYSIS

From our review of the administrative record, we find that the Examiner has presented a prima facie case for the rejections of Appellant's claims under 35 U.S.C. §§ 102 and 103. The prima facie cases are presented on pages 3 to 14 of the Examiner's Answer.

Rejection of claims 1 to 15, 22 to 31 and 33 to 36 under

35 U.S.C. 102(e) over Chirashnya

Rejection of Claims 16 to 19, 32, 37, 38 and 40 under

35 U.S.C. 103(a) over Chirashnya

In response to the prima facie case (*see In re Rouffet* cited above), Appellant presents a number of arguments against each of the rejections.

In his most compelling argument, Appellant argues (Reply Br. 4) that "availability of the network system," which is a limitation in each of the independent claims, is a term specifically defined in the Appellant's Specification (*Id.*).

Fig. 1 shows one embodiment of a method of calculating the availability of a network system or subsystem. The availability calculation may determine the instantaneous availability of the network system. The instantaneous availability of a system is the probability that the system is available (i.e., in a state to perform a required function) under a given set of circumstances at a given time.

(Spec. 7, ¶ 0018) (emphasis omitted).

Not only is the term defined in ¶ 0018,⁴ but it is mentioned in various other places throughout the whole Specification, each time meaning specifically a calculated indication of the availability of the network as a whole, and as calculated according to various methods described in the Specification (Reply 5, top). This is clearly a case of a specific meaning of the term, as recited in *Phillips v. AWH Corp.* (cited above). Throughout the Specification, various ways are presented for calculating the availability using various statistical approaches (*see e.g.*, Spec. ¶¶ 0036, 0040, and 0045). In all cases, the availability is expressed in probabilistic terms, with the focus on the availability figure for the network. The availability is expressed as a probability, a number between 0 and 1.

Turning to the prior art, Chirashnya maintains and updates a collection of network topology information, including Mean Time Between Failure information of the components. Furthermore, probabilities of a fault are described (e.g., Chirashnya 4, ¶ 0037). As faults occur, the probabilities of malfunction are updated. However, as mentioned in the reference (¶ 0054), the “malfunction probabilities in fault model **50** are typically expressed in terms of failure rates, such as estimated mean time between failures (MTBF).” Significantly, however, the *availability*, as defined by Appellant in the Specification, is not taught by this reference, and not suggested by it. Simply put, determining a system’s MTBF as in Chirashnya is not determining its “availability” in light of Appellant’s definition of the

⁴ Appellants attribute the quoted paragraph to ¶ 0020 in the Reply Brief, as that is the number in the published application. The paragraph number in the Specification of record is 0018.

term. Although, in view of the teachings of the other references discussed below, we are sympathetic to the Examiner's arguments concerning the similarity of the analyses performed in Chirashnya to those claimed, we cannot make the leap of obviousness (let alone anticipation) in view of the expression of the clearly defined claim limitation "availability of the network system" – a feature which is simply lacking in Chirashnya.

We, thus, find error in the rejections under 35 U.S.C. §§ 102(e) and 103 of the Examiner based on the teachings of Chirashnya alone.

*Rejections of
Claims 20 and 21 under 35 U.S.C. 103(a) over Chirashnya in view of
Rogers, and
Claim 39 under 35 U.S.C. 103(a) over Chirashnya in view of Noy*

A review of the contents of the Rogers reference indicates that in ¶ 0007 Rogers supplies a link teaching the relationship between operational availability and MTBF that may have been helpful in this analysis.

However, that particular teaching in Rogers is not supported by the contents of the Rogers provisional application, 60/344,448, filed on November 1, 2001, nor in its parent application 09/746,744, filed on December 22, 2000. The Noy reference, likewise, does not teach the noted relationship.

As the Chirashnya reference cannot be relied upon for teaching the claimed limitations of claims 20, 21 and 39, we hereby find error the Examiner's rejection of those claims under 35 U.S.C. §103.

Appellant challenged the use of the references to Rogers and Noy in the Examiner's rejection of claims 20 and 21 and in the rejection of claim 39

respectively (App. Br. 21-22; Reply Br. 20-21). In view of our analysis above, such a challenge is moot, and need not be decided at this time.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner erred in rejecting claims 1 to 40 under 35 U.S.C. §§ 102 and 103.

OTHER ISSUES

New Ground of Rejection Under 37 C.F.R. § 41.50(b)

Under 37 C.F.R. § 41.50(b), we enter a new ground of rejection under 35 U.S.C. § 101 for claims 7-22. 35 U.S.C. § 101 provides:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-22 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 7 recites, in pertinent part, a computer readable medium comprising program instructions executable to implement the recited functions. The Specification indicates that “[i]n some embodiments, the computer readable medium may be a *carrier medium* such as a network and/or a wireless link upon which *signals* such as electrical, electromagnetic, or digital signals may be *conveyed*” (Spec. 14, ¶ 0035; emphasis added).

Thus, reading independent claim 7 in light of the Specification, the recited “computer readable medium” of claim 7 encompasses a carrier medium that conveys a signal.

Signals are not patentable subject matter under § 101. *In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007). Although the court in *Nuijten* acknowledged the Board’s finding that an allowed claim reciting a storage medium with a signal stored thereon⁵ “nominally puts the claims into the statutory category of a ‘manufacture,’” this claim was nonetheless not before the court. *See Nuijten*, 500 F.3d, at 1351; *see also id.* at 1357.

In any event, a carrier medium that *conveys* a signal (e.g., a carrier wave) is distinguished from a tangible medium that *stores* a signal (e.g., a disk, memory, etc.), particularly with respect to the functionality of independent claim 7. Claim 7 calls for instructions that interact with the computer to perform specific functions. It is our view that the computer cannot perform the claimed functions while the instructions are within signals conveyed by a carrier wave.

Specifically, information sent by a carrier wave conveying signals is transmitted by modulating the carrier wave or signal with the information. This information must be received and demodulated before the information is available for use. Thus, the information, *while on the carrier wave or signal*, is unavailable to the computer for performing the functions recited in independent claim 7. It is also likely that all the information necessary to perform the functions of claim 7 never exists within the carrier wave or

⁵ *See Nuijten*, 500 F.3d at 1351 (“*Nuijten*’s allowed Claim 15 is directed to ‘[a] storage medium having stored thereon a signal with embedded supplemental data...’”).

signal at any one time. In other words, it is typical for information that is transmitted by signals conveyed by carrier waves to begin to be received at the receiver before all the information is transmitted. Therefore, it appears to us that complete program instructions for carrying out the claimed invention cannot exist while the information is being transmitted via signals conveyed by a carrier wave.

Furthermore, while the exemplary carrier media (i.e., a network and/or a wireless link) disclosed in paragraph 0035 of the Specification implicates physical carriers of information, the disclosure hardly limits the carriers to these examples. Rather, nothing in the passage precludes the use of any tangible means of information carriage.⁶ Indeed, non-tangible signals are specifically recited in the last sentence of this paragraph.

Thus, when read in light of the Specification, independent claim 7 includes both statutory subject matter (signals stored on a tangible medium) and non-statutory subject matter (signals conveyed by a carrier medium). According to recent USPTO interim guidelines, however, such claims must be amended to recite solely statutory subject matter.⁷

For the foregoing reasons, independent claim 7 or dependent claims 8-22 do not recite statutory subject matter under 35 U.S.C. § 101.

37 C.F.R. § 41.50(b)

⁶ *Cf. Nuijten*, 500 F.3d, at 1353 (“[W]hile the claims are limited so as to require *some* physical carrier of information, they do not in any way specify *what* carrier element is to be used.”) (emphasis in original).

⁷ *See* Manual of Patent Examining Procedure (MPEP) (8th ed., Rev. 6, Sept. 2007) § 2106(C)(2)(2)(a) (“[A] claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application.”).

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b) (amended effective Sept. 13, 2004, by final rule notice 69 Fed. Reg. 49,960 (Aug. 12, 2004), 1286 Off. Gaz. Pat. Office 21 (Sept. 7, 2004)). 37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection . . . shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

DECISION

The Examiner's rejection of claims 1 to 40 is reversed.

We enter a new ground of rejection under 37 C.F.R. § 41.50(b) for claims 7 to 22 as failing to recite statutory subject matter under 35 U.S.C. § 101.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

REVERSED

Appeal 2007-1894
Application 10/092,170

37 C.F.R. § 41.50(b)

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